

**(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)**

**(19) World Intellectual Property  
Organization  
International Bureau**



04 MAY 2005

**(43) International Publication Date**  
**21 May 2004 (21.05.2004)**

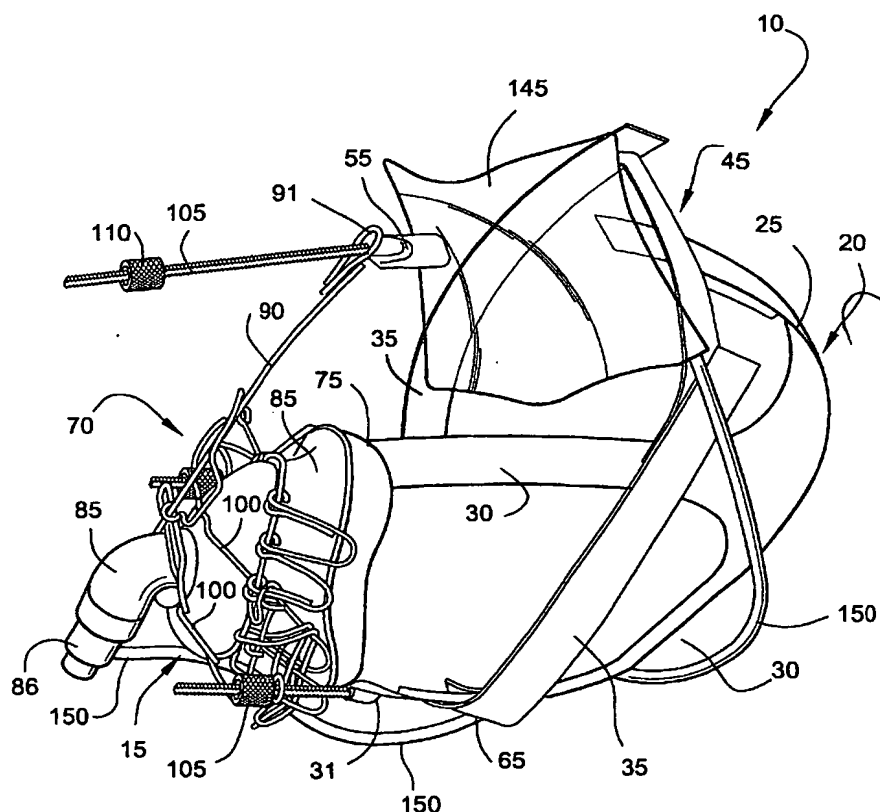
## PCT

**(10) International Publication Number**  
**WO 2004/041342 A1**

- |  |                                |                              |    |            |                               |    |            |                           |    |            |                                |    |   |
|--|--------------------------------|------------------------------|----|------------|-------------------------------|----|------------|---------------------------|----|------------|--------------------------------|----|---|
| <p><b>(51) International Patent Classification<sup>7</sup>:</b>      <b>A61M 16/06,</b><br/>A62B 18/02</p> <p><b>(21) International Application Number:</b><br/>PCT/AU2003/001471</p> <p><b>(22) International Filing Date:</b><br/>6 November 2003 (06.11.2003)</p> <p><b>(25) Filing Language:</b>      English</p> <p><b>(26) Publication Language:</b>      English</p> <p><b>(30) Priority Data:</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">60/424,005</td> <td style="width: 33%;">6 November 2002 (06.11.2002)</td> <td style="width: 33%;">US</td> </tr> <tr> <td>60/447,327</td> <td>14 February 2003 (14.02.2003)</td> <td>US</td> </tr> <tr> <td>60/488,752</td> <td>22 July 2003 (22.07.2003)</td> <td>US</td> </tr> <tr> <td>60/503,896</td> <td>22 September 2003 (22.09.2003)</td> <td>US</td> </tr> </table> <p><b>(71) Applicant (for all designated States except US):</b> <b>RESMED LIMITED</b> [AU/AU]; 97 Waterloo Road, North Ryde, New South Wales 2113 (AU).</p> | 60/424,005                     | 6 November 2002 (06.11.2002) | US | 60/447,327 | 14 February 2003 (14.02.2003) | US | 60/488,752 | 22 July 2003 (22.07.2003) | US | 60/503,896 | 22 September 2003 (22.09.2003) | US | <p><b>(72) Inventors; and</b></p> <p><b>(75) Inventors/Applicants (for US only):</b> <b>BERTHON-JONES, Michael</b> [AU/AU]; 7 Leonay Parade, Leonay, New South Wales 2750 (AU). <b>BATEMAN, Peter, Edward</b> [AU/AU]; 2/112 New Line Road, Cherrybrook, New South Wales 2126 (AU). <b>DARKIN, Donald</b> [GB/AU]; 2 Athella Place, Dural, New South Wales 2158 (AU). <b>GUNARATNAM, Michael, Kassipillai</b> [AU/AU]; 3 Keiley Street, Marsfield, New South Wales 2122 (AU). <b>HITCHCOCK, Robin, Garth</b> [AU/AU]; Unit 12/9-13 Castle Street, North Parramatta, New South Wales 2151 (AU). <b>JENKINSON, Phillip, James</b> [GB/AU]; 19 Dent Street, Epping, New South Wales 2121 (AU). <b>LYNCH, Susan, Robyn</b> [GB/AU]; Unit 7/14 Forest Grove, Epping, New South Wales 2121 (AU). <b>MALOUF, Gordon, Joseph</b> [AU/AU]; 43 Coopernook Avenue, Gympie Bay, New South Wales 2227 (AU). <b>MCAULIFFE, Patrick, John</b> [AU/AU]; Unit 18/11 Pembroke Street, Epping, New South Wales 2121 (AU). <b>RAJE, Milind, Chandrakant</b></p> |
| 60/424,005   | 6 November 2002 (06.11.2002)   | US                           |    |            |                               |    |            |                           |    |            |                                |    |   |
| 60/447,327   | 14 February 2003 (14.02.2003)  | US                           |    |            |                               |    |            |                           |    |            |                                |    |   |
| 60/488,752   | 22 July 2003 (22.07.2003)      | US                           |    |            |                               |    |            |                           |    |            |                                |    |   |
| 60/503,896   | 22 September 2003 (22.09.2003) | US                           |    |            |                               |    |            |                           |    |            |                                |    |   |

*[Continued on next page]*

- (54) Title: MASK AND COMPONENTS THEREOF**



**(57) Abstract:** A comfortable low-leak mask assembly for use with Non-Invasive Positive Pressure Ventilation (NIPPV) is provided to improve patient compliance and/or treatment. The mask system may include headgear having straps that are substantially inextensible and/or micro-adjustable; and/or a mask and/or cushion that includes various structures to allow enhanced/tailored sealing and/or fit at selected locations on the patient's face.

**WO 2004/041342 A1**